UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/773,303	01/31/2001	Larry M. Proctor	19742-001	8508

7590 09/25/2002

Emery L Tracy
P O Box 1518
Boulder, CO 80306

EXAMINER	
NELSON, AMY J	

ART UNIT	PAPER NUMBER
1638	17

DATE MAILED: 09/25/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/773,303	Applicant(s) Larry Proctor
	Examiner Amy Nelson	Art Unit 1638

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 2 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on *1/31/01, 7/16/01, and 7/30/01* .

2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1-58* is/are pending in the application.

4a) Of the above, claim(s) *16-50 and 53* is/are withdrawn from consideration.

5) ☒ Claim(s) *1-6* is/are allowed.

6) ☒ Claim(s) *7-15, 51, 52, and 54-58* is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) ☐ All b) ☐ Some* c) ☐ None of:

1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____ .
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

*See the attached detailed Office action for a list of the certified copies not received.

14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

a) ☐ The translation of the foreign language provisional application has been received.

15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____
4) ☐ Interview Summary (PTO-413) Paper No(s). _____
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other:

DETAILED ACTION

1. The time period for response to this Official action is set at TWO MONTHS from the mailing date of this Office action.

2. Applicant is advised that the original patent, or a statement as to loss or inaccessibility of the original patent, must be received before this reissue application can be allowed. This requirement may be deferred until the time of indication of allowable subject matter. See 37 CFR 1.178.

Drawings

3. Applicant must submit a clean copy of each drawing sheet of the printed patent at the time the reissue application is filed. If such copy complies with §1.84, no further drawings will be required. Where a drawing of the reissue application is to include any changes relative to the patent being reissued, the changes to the drawing must be made in accordance with paragraph (b)(3) of this section. The Office will not transfer the drawings from the patent file to the reissue application [See 37 CFR 1.173].

Election/Restriction

4. Newly submitted claims 16-50 and 53 are directed to an invention that is independent or distinct from the invention originally claimed. Restriction to one of the following inventions is required under 35 U.S.C. 121:

I. Claims 1-15, 51, 52, and 54-58, drawn to a *Phaseolus vulgaris* field bean plant, and seed thereof, that produces seed having a seed coat that is yellow in color, wherein the yellow color is from about 7.5 Y 8.5/4 to about 7.5 Y 8.5/6 in the *Munsell Book of Color* when viewed in natural light, a *Phaseolus vulgaris* field bean plant, and pollen therof, produced from seed deposited as ATCC Accession Number 209549, as well as a method of crossing said field bean plant, classified in class 800, subclass 260, for example.

II. Claims 16-27, and 38-48, drawn to a *Phaseolus vulgaris* field bean plant comprising a wood-like stalk and a plurality of wrinkled, dull, ovate-shaped leaves, classified in class 800, subclass 313, for example.

III. Claims 28-31, drawn to a pod of a *Phaseolus vulgaris* field bean plant having at onset a solid green color pattern, wherein said color is about 5 GY 6/6 in the *Munsell Book of Color* when viewed in natural light, classified in class 800, subclass 313, for example.

IV. Claims 32-37, drawn to a pod of a *Phaseolus vulgaris* field bean plant having at maturity a solid tan color pattern, wherein said color is about 5 Y 8.5/6 in the *Munsell Book of Color* when viewed in natural light, classified in class 800, subclass 313, for example.

V. Claims 49 and 50, drawn to a method of harvesting a *Phaseolus vulgaris* field bean plant, classified in class 47, subclass 58.1, for example.

VI. Claim 53, drawn to seed of a *Phaseolis vulgaris* field bean plant comprising a seed coat and a hilar ring, wherein said hilar ring is from about 2.5 Y 9/4 to about 2.5 Y 9/6 in the *Munsell Book of Color* when viewed under natural light, classified in class 800, subclass 313, for example.

5. The inventions are distinct, each from the other because of the following reasons: Inventions I and II are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case, the plants, seed and pollen of Group I and the plants of Group II differ in composition, structure, and function, *i.e.* in genotypic and phenotypic characteristics. Also, different searches would be required for examination of the two groups. Search of *Phaseolus vulgaris* plants comprising seed having a yellow seed coat would be required for Group I, whereas search of *Phaseolus vulgaris*

plants with wood-like stalk and wrinkled, dull, ovate-shaped leaves would be required for Group II.

6. Inventions I and III are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case, the plants, seed and pollen of Group I differ from the pods of Group III in composition, structure, and function, *i.e.* in genotypic and phenotypic characteristics. Also, different searches would be required for examination of the different groups. Search of *Phaseolus vulgaris* plants comprising seed having a yellow seed coat would be required for Group I, whereas search of *Phaseolus vulgaris* pods having at onset a solid green color pattern would be required for Group III.

7. Inventions I and IV are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case, the plants, seed and pollen of Group I differ from the pods of Group IV in composition, structure, and function, *i.e.* in genotypic and phenotypic characteristics. Also, different searches would be required for examination of the different groups. Search of *Phaseolus vulgaris* plants comprising seed having a yellow seed coat would be required for Group I, whereas search of *Phaseolus vulgaris* pods having at maturity a solid tan color pattern would be required for Group IV.

8. Inventions I and V are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case, the method of harvesting of Group V can be used with other *Phaseolus vulgaris* field bean plants than those of Group I, such as *Phaseolus vulgaris* field bean plants that do not comprise seed having a yellow seed coat. Also, the method of crossing a field bean plant of Group I differs from the method of harvesting a field bean plant of Group V in method steps, end products, and purpose. Moreover, different searches would be required for examination of the two groups. Search of methods of breeding and crossing plants would be required for Group I, whereas search of methods of cutting, harvesting, and drying plants would be required for Group V.

9. Inventions I and VI are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case, the plants, seed and pollen of Group I differ from the seed of Group VI in structure, composition, and function, *i.e.* in genotypic and phenotypic characteristics. Also, different searches would be required for examination of the two groups. Search of *Phaseolus vulgaris* plants comprising seed having a yellow seed coat from about 7.5 Y 8.5/4 to about 7.5 Y 8.5/6 in the *Munsell Book of*

Color when viewed in natural light would be required for Group I, whereas search of *Phaseolus vulgaris* seed having a hilar ring from about 2.5 Y 9/4 to about 2.5 Y 9/6 in the *Munsell Book of Color* when viewed under natural light would be required for Group VI.

10. Inventions II and III are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case, the plants of Group II differ from the pods of Group III in composition, structure, and function, *i.e.* in genotypic and phenotypic characteristics. Also, different searches would be required for examination of the different groups. Search of *Phaseolus vulgaris* plants with wood-like stalk and wrinkled, dull, ovate-shaped leaves would be required for Group II, whereas search of *Phaseolus vulgaris* pods having at onset a solid green color pattern would be required for Group III.

11. Inventions II and IV are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case, the plants of Group II differ from the pods of Group IV in composition, structure, and function, *i.e.* in genotypic and phenotypic characteristics. Also, different searches would be required for examination of the different groups. Search of *Phaseolus vulgaris* plants with wood-like stalk and wrinkled, dull, ovate-shaped leaves would be required for Group II, whereas search of

Phaseolus vulgaris pods having at maturity a solid tan color pattern would be required for Group IV.

12. Inventions II and V are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case, the method of harvesting of Group V can be used with other *Phaseolus vulgaris* field bean plants than those of Group II, such as *Phaseolus vulgaris* field bean plants that do not have a wood-like stalk and wrinkled, dull, ovate-shaped leaves. Moreover, different searches would be required for examination of the two groups. Search of *Phaseolus vulgaris* plants with wood-like stalk and wrinkled, dull, ovate-shaped leaves would be required for Group II, whereas search of methods of cutting, harvesting, and drying plants would be required for Group V.

13. Inventions II and VI are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case, the plants of Group II differ from the seed of Group VI in structure, composition, and function, *i.e.* in genotypic and phenotypic characteristics. Also, different searches would be required for examination of the two groups. Search of *Phaseolus vulgaris* plants with wood-like stalk and

wrinkled, dull, ovate-shaped leaves would be required for Group II, whereas search of *Phaseolus vulgaris* seed having a hilar ring from about 2.5 Y 9/4 to about 2.5 Y 9/6 in the *Munsell Book of Color* when viewed under natural light would be required for Group VI.

14. Inventions III and IV are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case, the pods of Group III differ from the pods of Group IV in composition, structure, and function, *i.e.* in genotypic and phenotypic characteristics. Also, different searches would be required for examination of the different groups. Search of *Phaseolus vulgaris* pods having at onset a solid green color pattern would be required for Group III, whereas search of *Phaseolus vulgaris* pods having at maturity a solid tan color pattern would be required for Group IV.

15. Inventions III and V are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case, the pods of Group III cannot be used in the method of harvesting a plant of Group V. Moreover, different searches would be required for examination of the two groups. Search of *Phaseolus vulgaris* pods having at onset a solid green color pattern would be required for Group III, whereas search of methods of cutting, harvesting, and drying plants would be required for Group V.

16. Inventions III and VI are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case, the pods of Group III differ from the seed of Group VI in structure, composition, and function, *i.e.* in genotypic and phenotypic characteristics. Also, different searches would be required for examination of the two groups. Search of *Phaseolus vulgaris* pods having at onset a solid green color pattern would be required for Group III, whereas search of *Phaseolus vulgaris* seed having a hilar ring from about 2.5 Y 9/4 to about 2.5 Y 9/6 in the *Munsell Book of Color* when viewed under natural light would be required for Group VI.

17. Inventions IV and V are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case, the pods of Group IV cannot be used in the method of harvesting a plant of Group V. Moreover, different searches would be required for examination of the two groups. Search of *Phaseolus vulgaris* pods having at maturity a solid tan color pattern would be required for Group IV, whereas search of methods of cutting, harvesting, and drying plants would be required for Group V.

18. Inventions IV and VI are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case, the pods of

Group IV differ from the seed of Group VI in structure, composition, and function, *i.e.* in genotypic and phenotypic characteristics. Also, different searches would be required for examination of the two groups. Search of *Phaseolus vulgaris* pods having at maturity a solid tan color pattern would be required for Group IV, whereas search of *Phaseolus vulgaris* seed having a hilar ring from about 2.5 Y 9/4 to about 2.5 Y 9/6 in the *Munsell Book of Color* when viewed under natural light would be required for Group VI.

19. Inventions V and VI are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case, the seed of Group VI cannot be used in the method of harvesting a plant of Group V. Moreover, different searches would be required for examination of the two groups. Search of methods of cutting, harvesting, and drying plants would be required for Group V, whereas search of *Phaseolus vulgaris* seed having a hilar ring from about 2.5 Y 9/4 to about 2.5 Y 9/6 in the *Munsell Book of Color* when viewed under natural light would be required for Group VI.

20. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, recognized divergent subject matter, and because the search required for one of the groups is not required for another, restriction for examination purposes as indicated is proper.

21. Since Patent Owner has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 16-50, and 53 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

22. Claims 1-15, 51, 52, and 54-58 are being examined.

Claim Objections

23. Claims 15, 55, and 58 are objected to because of the following informalities:

At Claim 15, line 2, "2.5 Y9/6" should be --2.5 Y 9/6--.

At Claim 55, line 1, it is recommended that "on" be changed to --in-- for clarity.

At Claim 58, line 2, it is recommended that "adjust" be changed to --adjusted-- for clarity.

Claim Rejections - 35 USC § 112

24. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

25. Claims 8-15, 51, 52, and 54-58 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to

reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The claimed invention is directed to a *Phaseolus vulgaris* field bean plant, as well as seed, pollen and propagation material thereof, that produces seed having a seed coat that is yellow in color, wherein the yellow color is from about 7.5 Y 8.5/4 to about 7.5 Y 8.5/6 in the *Munsell Book of Color* when viewed in natural light. Patent Owner further claims said plant, propagation material, pollen, and seed, wherein said seed has a hilar ring that is tan in color, wherein the tan color is from about 2.5 Y 9/4 to about 2.5 Y 9/6. And, Patent Owner claims said seed which further has a smooth texture, has a pleasing taste, absorbs large volumes of water, germinates in the dark, is cuboid in shape, and has a dry seed weight of about 43 grams per 100 seeds.

Patent Owner describes a single cultivar, Enola (seed deposited as ATTC Accession Number 209549), that has the claimed seed characteristics of yellow seed coat of from about 7.5 Y 8.5/4 to about 7.5 Y 8.5/6 in the *Munsell Book of Color* when viewed in natural light, tan hilar ring of from about 2.5 Y 9/4 to about 2.5 Y 9/6, smooth texture, pleasing taste, absorbs large volumes of water, germinates in the dark, is cuboid in shape, and has a dry seed weight of about 43 grams per 100 seeds.

Patent Owner does not describe other cultivars with the claimed characteristics, and hence it is not clear from the instant specification that the Patent Owner was in possession of the invention as broadly claimed.

The Federal Circuit has recently clarified the application of the written description requirement. The court stated that a written description of an invention "requires a precise definition, such as by structure, formula, [or] chemical name, of the claimed subject matter sufficient to distinguish it from other materials." University of California V. Eli Lilly and Co., 119 F.3d 1559, 1568; 43 USPQ2d 1398, 1406 (Fed. Cir. 1997). The court also concluded that "naming a type of material generally known to exist, in the absence of knowledge as to what that material consists of, is not a description of that material." Id. Further, the court held that to adequately describe a claimed genus, Patent Owner must describe a representative number of the species of the claimed genus, and that one of skill in the art should be able to "visualize or recognize the identity of members of the genus." Id.

In the instant specification, Patent Owner has described a single cultivar of *Phaseolus vulgaris*, Enola (ATCC Acession Number 209549), having a unique set of phenotypic characteristics, prepared by repeated selfing and selection of field beans from a mixed package of beans purchased in Mexico.

The described Enola cultivar has all of the claimed characteristics, *i.e.* seed of Enola plants have a seed coat that is yellow in color, wherein the yellow color is from about 7.5 Y 8.5/4

to about 7.5 Y 8.5/6 in the *Munsell Book of Color* when viewed in natural light (col. 5, lines 32-36). Seed also have a hilar ring that is tan in color, wherein the tan color is from about 2.5 Y 9/4 to about 2.5 Y 9/6 (col. 5, lines 36-39). Furthermore, the seed have a smooth texture (col. 4, line 21), pleasing taste (col. 4, line 21), cuboid shape (col. 5, lines 40-41), and a dry seed weight of 43 grams per 100 seeds (col. 5, lines 41-43), and the seed absorb large volumes of water (col. 4, lines 21-23) and germinate in the dark (col. 5, lines 38-39).

Enola also has a myriad of other disclosed phenotypic characteristics including: average height of 34.9 cm.; strong and erect stem and branches; scattered pods; good lodging resistance; wrinkled, dull, and ovate leaves; white flowers with white wings and keel; solid green, pear-shaped pods with straight beaks at onset; solid tan, pear-shaped pods with variable pod break; 3.1 seeds/pod; no anthocyanin pigmentation in flowers, stems, pods, seeds, leaves, petioles, peduncles and nodes; heat tolerant; some resistance to *Fusarium* root rot; average maturity 101 days (Example 1).

Patent Owner does not describe *Phaseolus vulgaris* field bean cultivars other than Enola falling within the scope of the genus of field bean cultivars with the claimed seed characteristic of yellow seed coat of from about 7.5 Y 8.5/4 to about 7.5 Y 8.5/6 in the *Munsell Book of Color* when viewed in natural light, *i.e.* Patent Owner has not described other *Phaseolus vulgaris* cultivars in terms of the many distinguishing phenotypic characteristics as have been described for Enola. In the absence of a thorough description of other *Phaseolus vulgaris* cultivars within

the scope of the genus, it is not clear if Patent Owner was in possession of other *Phaseolus vulgaris* cultivars that meet the claimed genus of *Phaseolus vulgaris* plants producing seed with the characteristic of yellow seed coat of from about 7.5 Y 8.5/4 to about 7.5 Y 8.5/6 in the *Munsell Book of Color* when viewed in natural light. Because Patent Owner has not described a representative number of cultivars of the claimed genus, Patent Owner has not adequately described the claimed genus.

Therefore, the specification does not adequately describe the genus of a *Phaseolus vulgaris* field bean plant, as well as seed, pollen and propagation material thereof, that produces seed having a seed coat that is yellow in color, wherein the yellow color is from about 7.5 Y 8.5/4 to about 7.5 Y 8.5/6 in the *Munsell Book of Color* when viewed in natural light, as recited in Claims 8-15, 51, 52, and 54-58.

26. Claims 7, 9, 10, 54, 56, and 57 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Patent Owner regards as the invention.

At Claim 7, lines 2-3, the phrase "the first and second field bean plant" lacks proper antecedent basis. The phrase should be changed to -- the first field bean plant and the second field bean plant--.

At Claim 9, the phrase "The *Phaseolus vulgaris* of claim 8" lacks proper antecedent basis. Claim 8 is directed to "A field bean variety." The phrase should be changed to recite --The field bean variety of Claim 8--. Claim 10 should be amended accordingly.

At Claim 54, line 1, the phrase "when eaten," is a meaningless phrase. Texture is independent of whether or not the seed is eaten. Taste is obviously dependent on eating. The phrase should be deleted.

At Claim 54, line 1, the term "smooth" is indefinite because it is a relative term and it is not clear to what it is compared. Hence, it is not clear what is encompassed by the claim. Appropriate amendment is required to clarify the metes and bounds of the claimed invention.

At Claim 54, line 2, the term "pleasing" is indefinite because it is a subjective term, and it is not clear how "pleasing" is determined, *i.e.* compared to what and according to whom. Hence, it is not clear what is encompassed by the claim. Appropriate amendment is required to clarify the metes and bounds of the claimed invention.

At Claim 55, line 1, the term "large" is indefinite because it is a relative term, and it is not clear to what it is compared. Hence, it is not clear what is encompassed by the claim. Appropriate amendment is required to clarify the metes and bounds of the claimed invention.

At Claim 56, line 1, the phrase "wherein germination occurs" is indefinite because it is not clear how it relates to or further defines the claimed seed. It is recommended that the phrase be amended to recite --wherein said seed germinates--.

At Claim 57, line 1, the phrase "is grown in a pod and the shape of said seed taken from the middle of said pod is cuboid" is indefinite because "is grown in" reads as a method step, whereas the instant claim is directed to a product. Also, "said seed taken from the middle of said pod" lacks proper antecedent basis. It is recommended that the phrase be amended to recite --is from the middle of a pod and is cuboid in shape--.

Claim Rejections - 35 USC § 102/103

27. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless --
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

28. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

29. Claims 8-15, and 51, 52, and 54-58 are rejected under 35 U.S.C. 102(b) as being anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over any of CIAT Accession No. G13 094 (deposited 1979; in CIAT *Phaseolus vulgaris* Catalog, 1992) or CIAT Accession No. G02 400 (deposited 1970; in CIAT *Phaseolus vulgaris* Catalog, 1992) or CIAT

Accession No. G22 215 (depositied 1986; in CIAT *Phaseolus vulgaris* Catalog, 1992) or CIAT Accession No. G22 227 (deposited 1986; in CIAT *Phaseolus vulgaris* Catalog, 1992) or CIAT Accession No. 622 230 (deposited 1986; in CIAT *Phaseolus vulgaris* Catalog, 1992) or CIAT Accession No. G11 891 (deposited 1980; in CIAT *Phaseolus vulgaris* Catalog, 1992) or GRIN Accession No. PI 312090 (deposited 1966) or GRIN Accession No. PI 208777 (deposited 1953) or GRIN Accession No. PI 282060 (deposited 1962) or Kaplan (Guitarrero Cave, p. 146, 1980) or Hernandez-Xolocotzi *et al.* (Seminar Series 2E, CIAT, p. 253-258, 1973) or Voysest (Varieties of Beans in Latin America, CIAT, p. 47-50, 1983) or Gepts (The Genetic Resources of Phaseolus Beans, p. 602, 1988).

Patent Owner claims a *Phaseolus vulgaris* field bean plant that produces seed having a yellow seed coat that is from about 7.5 Y 8.5/4 to about 7.5 Y 8.5/6 in the *Munsell Book of Color* when viewed in natural light, as well as propagation material, pollen and seed of said plant. Patent Owner further claims said seed, wherein said seed have a smooth texture, have a pleasing taste, take on a large volume of water when soaked prior to cooking, germinate in an environment free of light, are cuboid in shape in the middle of the pod, and have a dry seed weight of about 43 grams per 100 seeds. The additional claim limitations are indefinite for the reasons discussed *supra*, and do not further limit the claimed invention. Patent Owner also claims said field bean plant, and seed thereof, wherein said seed further comprise a hilar ring and

wherein said hilar ring is from about 2.5 Y 9/4 to about 2.5 Y 9/6 in the Munsell Book of Color when viewed in natural light.

The prior art references all teach deposited *Phaseolus vulgaris* field bean varieties (seed and plants) comprising a yellow seed coat and yellow/tan hilar ring. The Patent Office does not have the facilities for collecting and analyzing seed. Hence, the yellow seed coat of the prior art seed is indistinguishable from a seed having a seed coat of about 7.5 Y 8.5/4 to about 7.5 Y 8.5/6 in the *Munsell Book of Color* when viewed in natural light, in the absence of evidence to the contrary. Similarly, the yellow/tan hilar ring of the prior art seed is indistinguishable from seed having a hilar ring of about 2.5 Y 9/4 to about 2.5 Y 9/6 in the *Munsell Book of Color* when viewed in natural light, in the absence of evidence to the contrary. The deposited lines PI 282060, PI 208777, and PI 312090 each have dry seed weight of about 43 grams per 100 seeds (36, 40, and 30 respectively), and hence the prior art field bean varieties have the claimed characteristic. The burden is on the Patent Owner to distinguish the instantly claimed seed and plants from the prior art seed and plants.

Because propagation material includes seed, propagation material is necessarily taught by the prior art references. Because pollen is a part of the prior art plants, pollen is inherently taught by the prior art references.

The phrase "smooth texture" is indefinite, as discussed above, because "smooth" is a relative term. Hence, the phrase does not substantively limit the claimed invention. A smooth

texture is seen to be inherent in the prior art seed. However, if not inherent, seed with a smooth texture would nonetheless be an obvious morphological variant expected to arise upon cultivation of the prior art plants under a variety of different soils, environmental conditions, cultivation conditions and/or geographic locations.

The phrase "pleasing taste" is indefinite, as discussed above, because "pleasing" is a relative term and dependent on the taster. Hence, the phrase does not substantively limit the claimed invention. A pleasing taste is seen to be inherent in the prior art seed. However, if not inherent, seed with a pleasing taste would nonetheless be an obvious morphological variant expected to arise upon cultivation of the prior art plants under a variety of different soils, environmental conditions, cultivation conditions and/or geographic locations.

The phrase "take on a large volume of water when soaked prior to cooking" is indefinite, as discussed above, because "large" is a relative term. Hence, the phrase does not substantively limit the claimed invention. The ability to take on a large volume of water when soaked prior to cooking is seen to be inherent in the prior art seed. However, if not inherent, seed that take on a large volume of water when soaked prior to cooking would nonetheless be an obvious morphological variant expected to arise upon cultivation of the prior art plants under a variety of different soils, environmental conditions, cultivation conditions and/or geographic locations.

The phrase "seed taken from the middle of the pod is cuboid" is indefinite, as discussed above, because "cuboid" is a relative term. Hence, the phrase does not substantively limit the

claimed invention. A cuboid shape to seed taken from the middle of the pod is seen to be inherent in the prior art seed. However, if not inherent, seed with a cuboid shape in the middle of the pod would nonetheless be an obvious morphological variant expected to arise upon cultivation of the prior art plants under a variety of different soils, environmental conditions, cultivation conditions and/or geographic locations.

Patent Owner's further limitation "germinate in an environment free of light" does not further limit the claimed invention. It is well known in the art that seeds of most plants, including *Phaseolus vulgaris*, can germinate in the dark, albeit the plant morphology of the resultant plants may be altered. Therefore, dark germination is an inherent property of the prior art seed.

If the prior art *Phaseolous vulgaris* field bean seed does not inherently have a seed coat that is about 7.5 Y 8.5/4 to about 7.5 Y 8.5/6 in the *Munsell Book of Color* when viewed in natural light, does not have a hilar ring that is about 2.5 Y 9/4 to about 2.5 Y 9/6 in the *Munsell Book of Color* when viewed in natural light, and does not have a dry seed weight of about 43 grams per 100 seeds, and hence does not anticipate the claimed *Phaseolus vulgaris* field bean seed, then the claimed field bean seed is nonetheless considered to be an obvious morphological variant of the prior art field bean seed. It would have been obvious to one of ordinary skill in the art at the time of Patent Owner's invention, that among a population of plants of the prior art field bean variety grown in different soils, environmental conditions, cultivation conditions and/or geographic locations, a variation in seed coat, hilar ring color, and dry seed weight would

be expected to occur, such that the claimed field bean plants and seeds would be obvious if not inherent in view of the prior art field bean plants and seeds.

Subject Matter Allowable over the Prior Art

30. Claims 1-7 are deemed free of the prior art, as the prior art does not teach nor reasonably suggest an Enola field bean plant produced from Enola field bean seed deposited as ATCC Accession No. 209549. The deposited Enola field bean seed, and Enola field bean plants, and pollen produced therefrom, have a unique set of genetic characteristics which are not suggested by other prior art field bean varieties of record. Likewise, the method of crossing said deposited Enola field bean with itself or with another field bean plant is not anticipated by or obvious over the prior art of record.

Information Assessment

Patent Owner states that a package of *Phaeseolus vulgaris* field beans were purchased in Mexico in 1994 and brought to the United States (col. 2, lines 62-64). At least some of the field beans comprised a yellow seed coat, and Patent Owner has not clearly distinguished the yellow seed coat of the purchased field beans from the yellow seed coat of Enola variety obtained after several generations of selection. It is noted that the subsequent generations were selected by leaf size, pod adherence, resistance to pod shattering and yield (col. 2, line 67 - col. 3, line 30). Hence, it is presumed that the Enola variety developed after the three rounds of selection did not differ in seed coat color from the originally purchased variety, and the originally purchased variety comprised a seed coat color from about 7.5 Y 8.5/4 to about 7.5 Y 8.5/6 in the *Munsell Book of Color* when viewed in natural light.

A question remains as to whether or not the *Phaeseolus vugaris* field beans purchased in Mexico were also in public use or sale in the United States. The ability of the Office to determine whether the field beans were publicly available is limited. A search of electronic databases, the Internet and the Office's collection of retail catalogs has been conducted, however, the Office's collection of retail catalogs is not comprehensive. Furthermore, the field beans may have been sold at the wholesale level, sold under a different name, or even distributed to interested parties free of charge. Since the inventor and assignee of the instant application are in a better position

to know when, if ever, the field beans were publicly available in the United States, the Examiner is requiring this information in the attached Requirement for Information Under 37 CFR 1.105.

This Office action has an attached requirement for information under 37 CFR 1.105. A complete reply to this Office action must include a complete response to the attached requirement for information. The time period for reply to the attached requirement coincides with the time period for reply to this Office action.

31. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Amy J. Nelson whose telephone number is (703) 306-3218. The examiner can normally be reached on Monday-Friday from 8:30 AM - 5:00 PM.

The fax phone number for this Group is (703) 308-4242 or (703) 305-3014.

Any inquiry of a general nature or relating to the status of this application, or if the examiner cannot be reached as indicated above, should be directed to the legal analyst, Gwendolyn Payne, whose telephone number is (703) 305-2475.

Amy J. Nelson, Ph.D.
September 25, 2002

AMY J. NELSON, PH.D
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1600

ATTACHMENT
REQUIREMENT FOR INFORMATION UNDER 37 CFR 1.105

Patent Owner and the assignee of this application are required under 37 CFR 1.105 to provide the following information that the examiner has determined is reasonably necessary to the examination of this application.

The information is required to determine whether, the field beans obtained in Mexico were in public use or on sale in the United States prior to the filing date of the original patent application.

In response to this requirement please provide any information available regarding the first public use or sale in the United States of the field bean seeds originally obtained in Mexico. Because the inventor purchased the field bean seeds in Mexico and brought them to the United States, it is reasonable to expect that Patent Owner or assignee can readily obtain information regarding the public use or sale of said seeds in the United States at the time of the original purchase and/or prior to the filing date of the instant patent.

The fee and certification requirements of 37 CFR 1.97 are waived for those documents submitted in reply to this requirement. This waiver extends only to those documents within the scope of this requirement under 37 CFR 1.105 that are included in the applicant's first complete communication responding to this requirement. Any supplemental replies subsequent to the first communication responding to this requirement and any information disclosures beyond the scope of this requirement under 37 CFR 1.105 are subject to the fee and certification requirements of 37 CFR 1.97.

The applicant is reminded that the reply to this requirement must be made with candor and good faith under 37 CFR 1.56. Where the applicant does not have or cannot readily obtain an item of required information, a statement that the item is unknown or cannot be readily obtained will be accepted as a complete response to the requirement for that item.

This requirement is an attachment of the enclosed Office action. A complete reply to the enclosed Office action must include a complete response to this requirement. The time period for reply to this requirement coincides with the time period for reply to the enclosed Office action, which is 2 months.